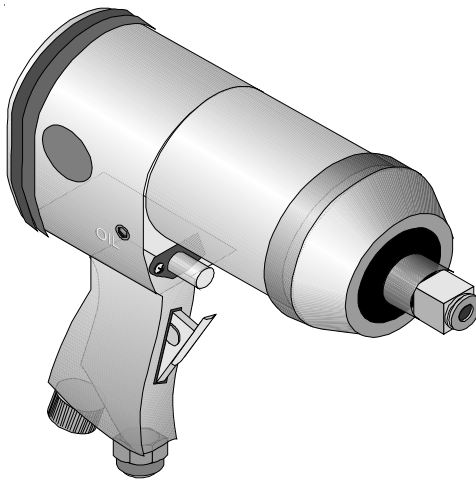


CENTRAL PNEUMATIC®

**3/4" HEAVY DUTY AIR IMPACT
WRENCH**

Model 32871

ASSEMBLY and OPERATING INSTRUCTIONS



3491 Mission Oaks Blvd. / Camarillo, CA 93011

Copyright © 1997 by Harbor Freight Tools. All rights reserved.
No portion of this manual or any artwork contained herein may be reproduced in any
shape or form without the express written consent of Harbor Freight Tools.

For technical questions and replacement parts, please call 1-800-444-3353.

SPECIFICATIONS

Free Speed	4500 RPM
Air Inlet	¼" NPT
PSI	90
CFM	7
Torque	*500 maximum ft-lbs.

SAVE THIS MANUAL

You will need the manual for the safety warnings and cautions, assembly instructions, operating procedures, maintenance procedures, trouble shooting, parts list, and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep both this manual and your invoice in a safe, dry place for future reference.

SAFETY WARNING & CAUTIONS

WARNING: When using pneumatic equipment, basic safety precautions should always be followed to reduce the risk of personal injury and hazards due to over pressurization.

READ ALL INSTRUCTIONS BEFORE USING THIS TOOL!

1. **KEEP WORK AREA CLEAN.** Cluttered areas invite injuries.
2. **OBSERVE WORK AREA CONDITIONS.** Do not use tools in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered air compressors in the presence of flammable gases or liquids.
3. **KEEP CHILDREN AWAY.** Children must never be allowed in the work area. Do not let them handle machines, tools, or hoses.
4. **STORE IDLE EQUIPMENT.** When not in use, tools must be locked up in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **DO NOT FORCE THE TOOL.** It will do the job better and more safely at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool's capacities.
6. **USE THE RIGHT TOOL FOR THE JOB.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. Do not use a tool for a purpose for which it was not intended.
7. **DRESS PROPERLY.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Non-skid footwear is recommended. Wear restrictive hair covering to contain long hair.
8. **USE EYE AND EAR PROTECTION.** Always wear ANSI approved chemical splash goggles when working with chemicals. Always wear ANSI approved impact safety goggles at other times.

Wear a full face shield if you are producing metal filings or wood chips. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists.

9. **DO NOT ABUSE THE POWER CORD.** Do not yank compressor's cord to disconnect it from the receptacle. Do not carry tools by the cord.
10. **DO NOT OVERREACH.** Keep proper footing and balance at all times. Do not reach over or across running machines.
11. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect compressor's cord periodically and, if damaged, have them repaired by an authorized technician. Inspect all hoses for leaks prior to use. The handles must be kept clean, dry, and free from oil and grease at all times.
12. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make it a habit to check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
13. **AVOID UNINTENTIONAL STARTING.** Do not carry any tool with your finger on the trigger, whether it is connected to the compressor or not.
14. **STAY ALERT.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
15. **CHECK DAMAGED PARTS.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn on and off properly.
16. **REPLACEMENT PARTS AND ACCESSORIES.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
17. **DO NOT OPERATE TOOL IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
18. **DRAIN COMPRESSOR EVERY DAY.** Do not allow moisture to build up inside the compressor. Do not allow compressor to sit pressurized for longer than one hour.
19. **MAKE SURE ALL EQUIPMENT IS RATED TO THE APPROPRIATE CAPACITY.** Make sure that regulator is set at least 10 PSI lower than the lowest rated piece of equipment you are using.

UNPACKING

Your Impact Wrench comes completely assembled.

If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual.

GENERAL

This Impact Wrench develops a maximum of 535 ft/lbs. of torque. The amount of torque can be increased or decreased using the AIR REGULATOR (#46). When the Air Regulator is completely screwed in it is at its lowest setting. Air pressure increases as you loosen the Air Regulator.

OPERATION

Setup

Frequent, but not excessive, lubrication is required for best performance. Oil added through the airline connection will lubricate internal parts. An automatic airline oiler is recommended but oil may be added manually before every operation or after about 1 hour of continuous use. Only 4 to 5 drops of oil at a time are necessary. Too much oil will collect inside the tool and be blown out during the exhaust cycle. **ONLY USE PNEUMATIC TOOL OIL.** Do not use detergent oil or additives as these lubricants will cause accelerated wear to the seals in the tool.

Dirt and water in the air supply are major causes of pneumatic tool wear. Use a filter/oiler for better performance and longer life. The filter must have adequate flow capacity for the specific application. Consult the manufacturer's instructions for proper maintenance of your filter.

The connector on the tool must not hold pressure when the air supply is disconnected. If the wrong fitting is used, the tool can remain charged with air after being disconnected and still be able to drive a fastener. See Figure 1 for the recommended accessories and connection order.

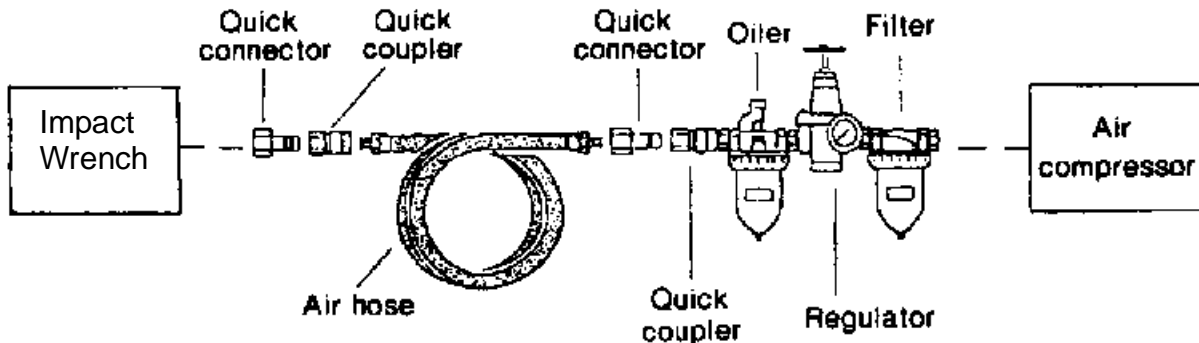


Figure 1 — Airline Oiler

Use

- Step 1: Set the compressor's pressure regulator to a maximum of 90 PSI. 90 PSI is satisfactory without harming this tool.
- Step 2: You will need to purchase a union fitting (sold separately) before you can connect the Impact Wrench to your air compressor. You may also wish to purchase an Air Coupler as this allows quick-coupling action when using multiple tools with one compressor.
- Step 3: Determine the socket size necessary for the job you need to do. Attach the appropriate 3/4" drive socket to the Impact Wrench as shown in Figure 2.

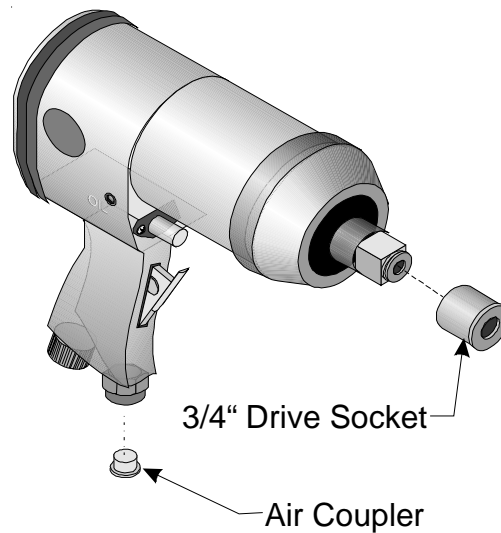


Figure 2 — Attaching the Air Coupler and Socket

- Step 4: Connect the Impact Wrench to the air compressor's hose. If leaking is detected, disconnect the air hose and repair before use.

Step 5: Select the power setting for Loosening by adjusting the AIR REGULATOR (#46) located on the bottom of the Impact Wrench as shown in Figure 3. When the Air Regulator is completely screwed in it is at it's lowest setting. Air pressure increases as you loosen the Air Regulator.

CAUTION
Use the Setting Appropriate for the Job. Do Not Set the Power Setting Higher Than Needed. Damage to Parts Could Result.

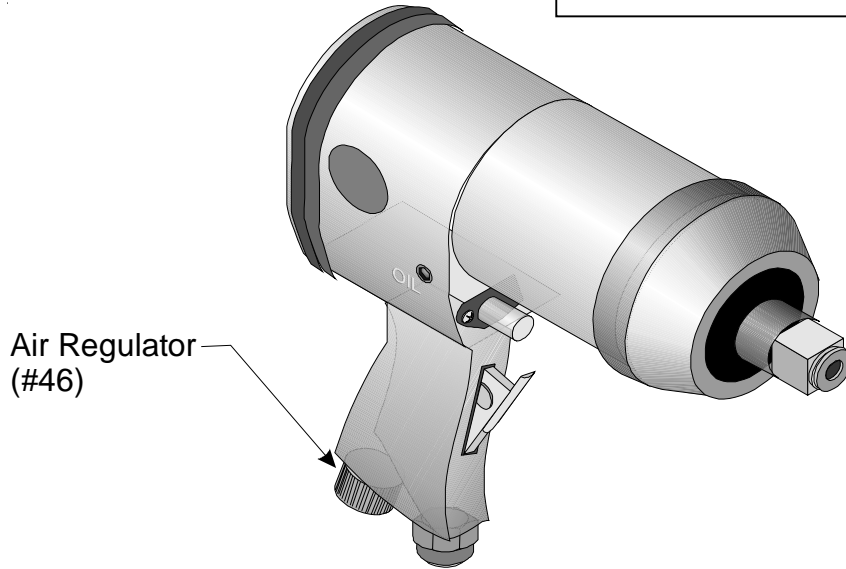


Figure 3 — Adjusting the Reverse Power Setting

Step 6: Select the direction of the Wrench (forward or reverse) by pushing the REVERSE VALVE (#48) located on the handle of the Impact Wrench as shown in Figure 4.

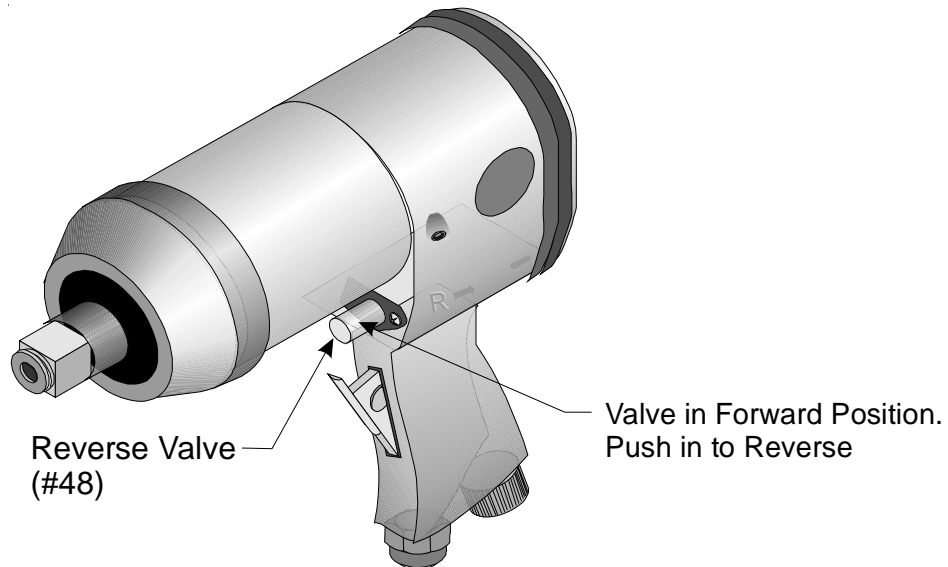


Figure 4 — Selecting Reverse Direction

Step 7: Press the TRIGGER (#38) to test the Impact Wrench. The Impact Wrench should spin freely as shown in Figure 5

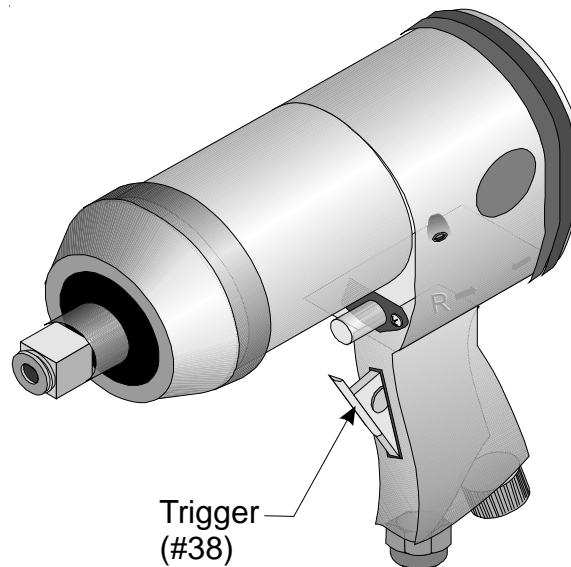


Figure 5 — Pressing Trigger

Loosening

Step 1: Verify that the power level is correct for your needs and that the REVERSE VALVE (#48) has been shifted (pressed) completely to the right. If not, refer to Steps 5 through 9 under **Use** before proceeding.

Step 2: Place your work in as clear a location as possible. Make sure the air hose will reach as far as needed without stressing any connections.

Step 3: With the correct socket attached to the Impact Wrench, slide the socket over the nut or bolt.

Step 4: Grip the Impact Wrench with both hands, especially with higher power settings. Make sure you are in a stable position and spread your feet shoulder-width apart.

Step 5: Press the TRIGGER (#38) to loosen the bolt.

Step 6: If the bolt will not loosen, and you are on a low power setting for Loosening, try increasing the power setting and attempt again.

Step 7: If the bolt will not loosen with the Impact Wrench on a higher power setting, do not repeat attempts to loosen. You may snap the bolt or strip the threads of the stud or nut. Try another method to loosen the bolt or nut.

WARNING
The Impact Wrench May Kick Back
During Operation. If This
Happens, Release the TRIGGER
IMMEDIATELY!

Tightening

- Step 1: Verify that the power level is correct for your needs and that the REVERSE VALVE (#48) has been shifted (pressed) completely to the left. If not, refer to Steps 5 through 9 under **Use** before proceeding.
- Step 2: Place your work in as clear a location as possible. Make sure the air hose will reach as far as needed without stressing any connections.
- Step 3: Thread the nut or bolt on as far as possible by hand. This is to prevent cross-threading.
- Step 4: If you have torque specs for the nut or bolt you are working on, refer to them. If a low torque setting is given, it is recommended that you use a socket wrench or a manual torque wrench to tighten as the Impact Wrench may provide too much torque, even in the lowest power setting.
- Step 5: Place the socket onto the nut or bolt.
- Step 6: Grip the Impact Wrench with both hands, especially with higher power settings. Make sure you are in a stable position and spread your feet shoulder-width apart.
- Step 7: Press the TRIGGER to tighten the bolt.
- Step 8: When the bolt is tight, release the TRIGGER. **DO NOT OVER TIGHTEN!**

MAINTENANCE

There are no user-serviceable parts in your Impact Wrench. Attempts to repair or make adjustments on your tool are prohibited and will VOID your warranty.

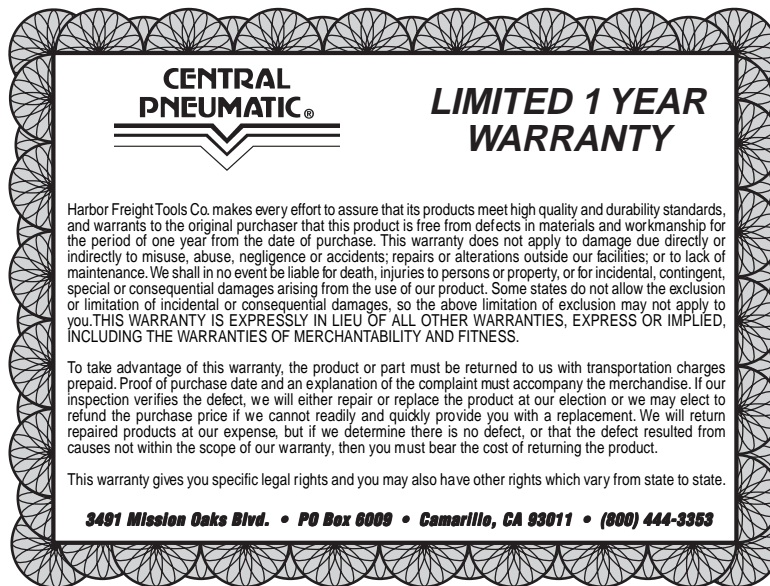
Refer to **OPERATIONS Setup** for information on maintaining your tool.

Wipe down your tool after every use and store it in a drawer or other safe place

PARTS LIST

Item#	Description	Parts#	Item#	Description	Parts#
1	Housing	HY161-01	25	Spring Washer	HY160-36
2	Set Screw	HY160-45	26	Cylinder Screw	HY161-19
3	Anvil Bushing	HY161-02	27	Spring Washer	HY161-25
4	Washer	HY161-03	28	Cap Screw	HY161-26
5	Anvil Collar	HY161-04	29	Rubber	HY161-27
6	O-Ring	HY161-05	30	Protector, Rubber	HY161-44
7	Anvil	HY161-06	31	Oil Seal	HY161-43
8	Hammer Cage	HY161-07	32	Tapping Screw	HY161-16
9	Bearing	HY161-11	33	Exhaust Deflector	HY161-32
10	Oil Seal	HY161-12	34	Pin	HY160-32
11	O-Ring	HY161-13	35	Spring	HY160-31
12	Hammer Pin	HY161-08	36	Set Screw	HY160-16
13	Hammer Dog	HY161-09	37	Spring Pin	HY160-30
14	Drive Cam	HY161-10	38	Trigger	HY161-33
15	Front End Plate	HY161-14	39	Spring Pin	HY161-42
16	Rotor Blade	HY161-15	40	Bushing	HY160-43
17	Rotor	HY161-16	41	Valve Stem	HY160-06
18	Cylinder	HY161-17	42	Air Control Bushing	HY161-46
19	Rear End Plate	HY161-18	43	Spring	HY160-09
20	Oil Seal	HY161-12	44	Hose Adapter	HY160-10
21	Bearing	NY161-20	45	O-Ring	HY161-36
22	Rear Gasket	NY161-21	46	Air Regulator	HY161-38
23	Rear Cover	HY161-22	47	Air Pipe	HY161-01-1
24	O-Ring	HY161-24	48	Reverse Valve	HY161-35

WARRANTY



ASSEMBLY DIAGRAM

